

AMENDMENTS TO THE CLAIMS

1. (original) A method comprising:
 - providing a memory;
 - allocating the memory between a first buffer and a second buffer;
 - receiving a video signal that includes video data for reconstructing an image;
 - generating image data representative of the image from the video data;
 - decoding control data from the video signal that specifies whether the image data is long-term data or short-term data;
 - storing the image data in the first buffer when the image data is short-term data; and
 - storing the image data in the second buffer when the image data is long-term data.
2. (original) The method of claim 1 further comprising decoding data from the video signal that identifies the image data as short-term data or long-term data.
3. (original) The method of claim 2 further comprising decoding an index from the video signal, when the image data is long-term data, that specifies a location of the second buffer, and storing the long-term data in the location.
4. (original) The method of claim 1 further comprising decoding control data from the video signal that specifies whether the image data is to be reconstructed from a reference image in a short-term buffer or a long-term buffer, and selecting a reference image from one of a short-term buffer or a long-term buffer according to the control data.
5. (original) The method of claim 1 further comprising reconstructing a first portion of the image using a first reference image in a short-term buffer, and reconstructing a second portion of the image using a second reference image in a long-term buffer.
6. (original) The method of claim 1 wherein storing the image data in the first buffer includes at least one of:
 - storing the image data in a first location that is unused, when an unused location exists; and
 - storing the image data in a second location that contains a least recently received image data, when no unused location exists.

7. (original) The method of claim 1 wherein the video signal includes a first parameter that specifies that the image data is long-term data and a second parameter that specifies a location of the second buffer where the image data should be stored.
8. (original) The method of claim 1 further comprising decoding from the video signal a new allocation of the memory between one or more short-term buffers and one or more long-term buffers.
9. (original) The method of claim 1 wherein the video signal includes at least one of a block, a group of blocks, a macroblock, or a frame.
10. (original) The method of claim 1 further comprising detecting an error in the video data and signaling the error to an encoder on a back-channel.
11. (original) The method of claim 1 further comprising decoding one or more variable length fields in the video signal.
12. (original) The method of claim 1 wherein the short-term data in the first buffer is stored in a first-in-first-out manner and indexed sequentially.
13. (original) The method of claim 1 wherein the long-term data in the second buffer is stored according to a long-term buffer index included in the video signal.
14. (original) The method of claim 1 further comprising deallocating at least one of the first buffer or the second buffer based upon allocation data decoded from the video signal.
15. (original) The method of claim 1 wherein the video data includes differential video data that specifies differences between the image and a reference image.
16. (original) The method of claim 1 wherein the video data is reference data for the image, the reference data being used as the image data.

17. (original) A computer program product comprising:
- computer executable code for allocating a memory between a first buffer and a second buffer;
 - computer executable code for decoding a video signal that includes video data for reconstructing an image;
 - computer executable code for generating image data representative of the image from the video data;
 - computer executable code for decoding control data from the video signal that specifies whether the image data is long-term data or short-term data;
 - computer executable code for storing the image data in the first buffer when the image data is short-term data; and
 - computer executable code for storing the image data in the second buffer when the image data is long-term data.
18. (original) A video processing system comprising:
- a memory;
 - an allocating means for allocating the memory between a first buffer and a second buffer;
 - a receiving means for receiving a video signal that includes video data for reconstructing an image;
 - a generating means for generating image data representative of the image from the video data;
 - a decoding means for decoding control data from the video signal that specifies whether the image data is long-term data or short-term data; and
 - a storing means for storing the image data in the first buffer when the image data is short-term data, and for storing the image data in the second buffer when the image data is long-term data.

19. (original) A method comprising:
- providing a memory;
 - allocating the memory between a short-term buffer and a long-term buffer;
 - storing a long-term reference image in the long-term buffer and a short-term reference image in the short-term buffer;
 - receiving a video signal that includes video data for reconstructing an image;
 - decoding control data from the video signal that specifies a reference image for reconstructing the image, the reference image being at least one of the short-term reference image or the long-term reference image; and
 - generating image data representative of the image from the video data and the reference image.
20. (original) A method comprising:
- providing a memory;
 - allocating the memory between a short-term buffer and a long-term buffer;
 - storing a long-term reference image in the long-term buffer and a short-term reference image in the short-term buffer;
 - receiving a video signal that includes video data for reconstructing an image;
 - decoding first control data from the video signal that specifies a reference image for reconstructing the image, the reference image being at least one of the short-term reference image or the long-term reference image;
 - generating image data representative of the image from the video data and the specified reference image;
 - decoding second control data from the video signal that specifies a buffer for storing the image data, the specified buffer being at least one of a second short-term buffer or a second long-term buffer; and
 - storing the image data in the specified buffer.

21. (original) A method comprising:
- providing a memory;
 - allocating the memory between a short-term buffer and a long-term buffer;
 - storing a long-term reference image in the long-term buffer and a short-term reference image in the short-term buffer;
 - receiving a video signal that includes video data for reconstructing an image;
 - decoding control data from the video signal that specifies a reference image for reconstructing the image, the reference image being at least one of the short-term reference image or the long-term reference image; and
 - generating image data representative of the image from the video data and the reference image.
22. (original) A decoder comprising:
- a memory;
 - a buffer allocation decoder configured to allocate the memory between a long-term buffer and a short-term buffer;
 - a video input that receives a video signal that includes video data for reconstructing an image;
 - a picture decoder that generates image data representative of the image from the video data; and
 - an image storage control that decodes control data from the video signal that specifies whether the image data is long-term data or short-term data, and stores the image data in the short-term buffer when the image data is short-term data, and stores the image data in the long-term buffer when the image data is long-term data.
- 23–24. (cancelled)

25. (original) A data signal embodied on a video conferencing carrier wave, the data signal comprising:
- a picture identification number assigned sequentially to a picture;
 - a flag that indicates whether the data signal includes a number of long-term buffers value;
 - a picture property change indicator that indicates a change of image data between short-term data, long-term data, and unused data;
 - a number of buffers for remapping field specifying reallocation instructions;
 - a picture buffering mode that signals a way that a current image is to be stored, the way being at least one of as a long-term image or a short-term image; and
 - a picture buffer identification that signals a location where a current image is to be stored, the location being at least one of an index for a long-term buffer or an identification number for a short-term buffer.
26. (original) The data signal of claim 25 further comprising a number of long-term buffers value that specifies a maximum number of long-term buffers allowed for use by a decoder receiving the data signal.
27. (original) The data signal of claim 25 further comprising address information for changing picture properties, the address information including at least one of a difference of short-term picture identifier specifying a difference between a current short-term picture and a previous short-term picture, or a long-term picture index specifying an index for a long-term buffer.
28. (original) The data signal of claim 25 further comprising a long-term/short-term buffer indication, an absolute difference of picture identification, and a sign of difference of the absolute difference.